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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,994	06/14/2001	Minoru Teshigawara	862.C2266	4699

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EXAMINER

AKPATI, ODAICHE T

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,994

Applicant(s)

TESHIGAWARA, MINORU

Examiner

Tracey Akpati

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Usami et al (US 6785814 B1).

With respect to Claim 1, the limitation of “additional information generating means for generating additional information; and adding means for adding the additional information to image data to generate information-added data; and encrypting means for encrypting the information-added data to make it difficult to detect that the additional information is added” on column 20, lines 10-29. The supplemental information generating means represents the additional information while the embedding means represents the adding means.

With respect to Claim 2, the limitation of “wherein said encrypting means encrypts the information-added data to make it difficult to detect a position where the additional information is added” on column 1, lines 16-21 and on column 2, lines 37-40. Deep layer encryption is a method of embedding images that make them invisible to the human eye.

With respect to Claim 3, the limitation of “wherein said encrypting means adds key information for specifying an encryption method to the encrypted information-added data” on column 1, lines 16-21.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-11, 16-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami et al (US 6785814 B1).

With respect to Claim 4, the limitation of “wherein said encrypting means encrypts the information-added data by randomly arranging the data” on column 2, lines 22-34.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have the information-added data be randomly arranged because the supplementary information is embedded within a plane of 3x3 pixels around a target pixel as a quantization noise. Since noise is a random variable, hence the supplemental information is randomly distributed about the target pixel.

With respect to Claim 5, the limitation of “wherein said encrypting means arranges the information-added data on the basis of a predetermined random pattern” on column 2, lines 22-34.

With respect to Claim 6, the limitation of “wherein the key information is information for specifying the random pattern” is met on column 2, lines 22-34.

With respect to Claim 7, the limitation of “transmitting means for transmitting the image data encrypted by said encrypting means to a connected image forming apparatus” on Fig. 5.

With respect to Claim 8, the limitation of “wherein the additional information includes first information for specifying the image forming apparatus” on column 12, lines 39-49.

With respect to Claim 9, the limitation of “wherein the first information is notified from the image forming apparatus” on column 12, lines 39-49.

With respect to Claim 10, the limitation of “wherein the additional information includes second information associated with a processing environment for the image data” on column 4, lines 31-46.

With respect to Claim 11, the limitation of “wherein the second information includes information for specifying the image processing apparatus” on column 4, lines 31-46.

With respect to Claim 16, the limitation of “wherein the image data is color image data made of a plurality of color components, and said adding means adds the additional information

to data of a predetermined color component of the color image data” on column 2, lines 40-53, 66-67 and on column 3, lines 1-20.

With respect to claim 17, its limitation is similar to Claim 1 limitation and hence its rejection can be found therein.

With respect to Claim 18, its limitation is similar to Claim 2 limitation and hence its rejection can be found therein.

With respect to Claim 19, the limitation of “an image processing system having an image processing apparatus connected to an image forming apparatus” is met on Fig. 5 and on column 1, lines 16-20; and “said image processing apparatus including additional information generating means for generating additional information; and adding means for adding the additional information to image data to generate information-added data; and encrypting means for encrypting the information-added data to make it difficult to detect that the additional information is added” on column 20, lines 10-29; and “transmitting means for transmitting the encrypted image data to said image forming apparatus” is met on Fig. 5; and “said image forming apparatus including receiving means for receiving the encrypted data transmitted from said image processing apparatus; and decrypting means for obtaining the information-added data by decrypting the received encrypted data; and image forming means for forming a visible image on the basis of the decrypted information-added data” is met by Fig. 5 and on column 16, lines 18-30.

With respect to Claim 20, the limitation of “wherein said encrypting means encrypts the information-added data to make it difficult to detect a position where the additional information is added” is met by column 1, lines 16-21.

With respect to Claim 21, the limitation of “wherein said encrypting means adds key information for specifying an encryption method to the encrypted information-added data” on column 1, lines 16-21; and “said decrypting means decrypts the encrypted data on the basis of the key information added by said encrypting means” on column 16, lines 18-30

With respect to Claim 22, its limitation is similar to Claim 1 limitation and hence its rejection can be found therein.

With respect to Claim 23, the limitation of “a storage medium storing the program defined in claim 22” is met by Fig. 1. The storage management information generating means represents the storage medium.

Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Usami et al (6785814 B1) in view of Ito et al (US 2001/0013097 A1).

With respect to Claim 12, all the limitation is met by Usami et al except for the following limitation.

The limitation of “wherein the information for specifying the image processing apparatus includes a network ID of the image processing apparatus” by Ito et al on paragraph 13.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al within the system of Usami et al because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

With respect to Claim 13, all the limitation is met by Usami et al except for the following limitation.

The limitation of “wherein the network ID is acquired in accordance with a type of network to which the image processing apparatus is connected” is met by Ito et al on paragraph 13.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al within the system of Usami et al because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

With respect to Claim 14, all the limitation is met by Usami et al except for the following limitation.

The limitation of “wherein the information for specifying the image processing apparatus include a user ID of the image processing apparatus” is met by Ito et al on paragraph 13.

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al within the system of Usami et al because a network ID is essential for the image processing apparatus to be identifiable and hence connected to a network.

With respect to Claim 15, all the limitation is met by Usami et al except for the following limitation.

The limitation of "wherein the second information includes processing date information of the image data" is met by Ito et al in the abstract.

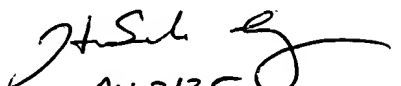
It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ito et al within the system of Usami et al because the processing date information will enable ID of the embedded supplemental information to be unique and hence more secure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracey Akpati whose telephone number is 571-272-3846. The examiner can normally be reached on 8.30am-6.00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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